

REMARKS

The Examiner, Mr. Thomas, is thanked for the courtesy extended applicants attorney during the telephone conversation of October 3, 2005 during which a proposed amendment submitted to the Examiner by facsimile on September 29, 2005 was discussed. It is noted that due to scheduling difficulties, although applicants attempted to conduct a personal interview with the Examiner, applicants were only able to discuss this application by telephone on October 3, 2005 and applicants invite the Examiner to contact the undersigned attorney to schedule a personal interview, if considered necessary. Applicants note that during the telephone discussion, applicants advised that applicants consider the finality of the office action to be premature, and that the amendment as submitted herewith should be entered as a matter of right, as will be discussed below.

Turning first to the prematureness of the finality of the office action, applicants note that in the office action of March 23, 2005, the Examiner stated that "Claims 2 and 3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims". (emphasis added) In the Amendment filed June 23, 2005, applicants acknowledged the indicating of allowability of claims 2 and 3, while indicated that such claims have been retained in dependent form since the parent claim has been amended to clarify features, with claim 2 being amended in a manner similar to that suggested by the Examiner so as to overcome the informalities noted. Applicants note that parent claim 1 stood rejected under 35 USC 112, second paragraph and prior art, and was amended in a manner to clarify the features noted by the Examiner so as to be in compliance with 35 USC 112, second

paragraph. Thus, applicants submit that the amendment of claim 1 did not affect the allowability of claims 2 and 3.

In the office action of July 7, 2005, indicated as being final, the Examiner recognized that the rejections under 35 USC 112, second paragraph have been overcome, but now rejects previously objected to claims 2 and 3 over newly cited cited art. Applicants submit that this new ground of rejection of claims 2 and 3, and the making of the rejection final is considered to be improper and, contrary to the requirements of MPEP §706.07(a) which provides "Under present practice, second or any subsequent actions on the merits shall be final, except where the Examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims ..." (emphasis added). It is readily apparent that the rejection of claims 2 and 3 over the newly cited patent to Muehllehner (US Patent 6,462,341), which is contended to disclose the features of claims 2 and 3, when claims 2 and 3 were indicated as being allowable, is contrary to the requirements of MPEP §706.07(a), such that the finality of the office action is considered to be premature, and applicants request withdrawal of the finality of the office action, and entry of the amendment, as presented herein, as a matter of right. In accordance with MPEP §706.07(c), the question as to prematureness of the final rejection is raised while the application is still pending for the primary Examiner and a petition lies from the action taken by the Examiner.

By the present amendment, claim 1 has been amended to more clearly recite the structural arrangement as illustrated in Figure 7 of the drawings of this application. As illustrated, the X-ray sensitive module includes a plurality of X-ray detecting elements 112 in the form of scintillator and transparent means 121, which optically connect to a light output surface of the scintillator 112, for outputting light

from an input surface 210 to an output surface 211 thereof, and a cutaway part 120 is provided at one part of the transparent means such module. Thus, due to the cutaway part 120, an area of the light output surface 120 of at least one of the transparent means, which is optically connected to a photoelectric means, is smaller than an area of a light input surface 211 thereof upon which light from the scintillator is incident. Moreover, module wiring means 144 and electrode pads 166, for example, are provided at the cutaway part 120. In accordance with the present invention, as now recited in claim 1, "at least a part of said module wiring means (generally indicated at 144 in Fig. 7 or said electrode pads 160-1-1) is located adjacent to the smaller area of the light output surface of the at least one of said transparent means in a space (120) where an area of the light output surface of said transparent means would normally be substantially equal to the light input surface thereof". As described at page 25 to page 27, line 25, the cut away part provides an arrangement for the electrical connection and improved operation is obtained by this structural arrangement. Applicants submit that claim 1, as amended, patentably distinguishes over the cited art, as will become clear from the following discussion.

The rejection of claims 1 - 3 and 5 - 14 under 35 USC 103(a) as being unpatentable over Applicants Admitted Prior Art (AAPA) in view of Yoshida (US 6,393,092) and Muehllehner (US 6,462,341) such rejection is traversed insofar as it is applicable to the present claims and reconsideration and withdrawal of the rejection are respectfully requested.

Irrespective of the Examiner's contentions concerning AAPA and Yoshida, as recognized by the Examiner, such references do not disclose or teach the claimed structural arrangement as previously recited in claim 1 that "in at least one of the transparent means, an area of the light output surface thereof which is optically

connected to the photoelectric means is smaller than an area of the light input surface thereof upon which light from the scintillator is incident". The Examiner cites Muehllehner for such teaching, referring to Figure 5 thereof, indicating that this patent discloses a transparent means (90) wherein at least one of the transparent means an area of a light output surface optically connected to photoelectric means (85) is smaller than an area of a light input surface upon which light from the scintillator (80) is incident. The Examiner indicates that "Muehllehner teaches that such construction enables the channel of photons whereby the number of photoelectric means (85) needed for event detection is reduced (column 5, lines 38 - 42)". As described in this portion of patent, the boundaries 110 reduce the distance over which light from the detecting elements 80 spread within the light transmitting member 90 and redirects the light in such a way that accurate positioning of the event can be achieved with fewer, larger PMTs. It is noted that reference numeral 115 in Fig. 5 represents photons and does not represent electrical wiring or electric pads. Moreover, as illustrated in Fig. 5, electrical connections with the photoelectric members 85 is provided at an opposite side of the photoelectric member with respect to where the side facing the transparent members 90. Accordingly, Muehllehner may be considered to teach away from providing electrical connection in the region of boundaries 110 of the transparent member 90. Thus, irrespective of the contentions by the Examiner, there is no disclosure or teaching in Muehllehner, taken alone or in combination with AAPA and Yoshida, of the structural arrangement as now recited in claim 1 of "at least a part of said module wiring means or said electrode pads is located adjacent to the smaller area of the light output surface of the at least one of said transparent means in a space where an area of the light output surface of said transparent means would normally be

substantially equal to the light input surface thereof". (emphasis added) As such, applicants submit that claim 1, as amended patentably distinguishes over the cited art in the sense of 35 USC 103 and should be considered allowable thereover.

With respect to claims 2, 3 and 5 - 14, applicants note that such claims are dependent claims dependent from claim 1, and recite further features, which when considered in conjunction with parent claim 1, further patentably distinguish over the cited art in the sense of 35 USC 103 and should be considered allowable thereover.

In view of the above amendments and remarks, applicants submit that all claims present in this application patentably distinguish over the cited art and should now be in condition for allowance. Accordingly, issuance of an action of a favorable nature is courteously solicited.

The Examiner is invited to contact the undersigned attorney to schedule an interview, if deemed necessary.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 520.42928X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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Attachments